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Date of Application, 10th Sept., 1907

Complete Specification Left, 22nd Feb., 1908—Accepted, 25th June, 1908

PROVISIONAL SPECIFICATION.

Medical Apparatus for Injecting Purposes.

I, Dr. KARL KRAUTSCHNEIDER, of Karl Ludwigsplatz 12, Innsbruck, Austria, do hereby declare the nature of this invention to be as follows:—

This invention has for object to provide medical apparatus for injecting purposes in which the medicine or the like to be injected may be kept in a sterilised state in compressible capsules each containing a charge or dose of exactly the correct quantity. From these capsules, which are also sterilised, the charge can be introduced by means of the syringe directly and under aseptic conditions into the particular part of the body to be treated.

Fig. 1 of the accompanying drawings shows by way of example one construction of apparatus embodying this invention in longitudinal section.

Fig. 2 shows the injecting cylinder or body of the apparatus in elevation.

Fig. 3 shows a capsule adapted to keep medicine contained therein in proper condition.

The apparatus comprises a cylinder *a* having a cover *b* detachably fastened thereto as by means of a bayonet joint or the like. Through a centrally arranged screw threaded hole in the cover extends a spindle which is formed with a screw of quick pitch and which is provided with a squeezing die *d* at its inner end and a milled head *f* at its outer end.

The front end of the cylinder *a* has a tubular extension *g* on to which is pushed or screwed a disc *h* adapted to compress the extension *g* at its mouth.

The medicine capsule *i*, made of tin or other suitable material, is of such size as to be readily inserted into the injecting cylinder *a*, and, in order to enable it to be filled in a sterile manner, it is provided with a discharge and filling tube *j* which, as long as the filled capsule is unused, is closed by a sealing cap *k* (Fig. 3).

When the capsule is to be used the cap *k* is removed and the capsule introduced into the cylinder *a* so that the small discharge tube *j* projects through the tubular extension *g* of the cylinder before the disc *h* is put on. By then putting the disc *h* in place the tubular extension *g* is compressed around the tube *j* and the capsule *i* thus held in place. The usual injection needle *l* can then be fixed on the tube *j*. After putting on the cover *b* the capsule can now be compressed by means of the squeezing die *d* and its contents injected into the part of the body being treated.

In order to charge the capsules they may be connected to a phial containing the medicine by a piece of flexible tubing and the liquid, by a throwing action, may be sent into the capsule by centrifugal force.

Dated this 10th day of September 1907.

For the Applicant

F. WISE HOWORTH, F.C.S.,  
46 Lincoln's Inn Fields, London, W.C.  
Chartered Patent Agent,

[Price 8d.]



*Krautschneider's Medical Apparatus for Injecting Purposes.*

## COMPLETE SPECIFICATION.

## Medical Apparatus for Injecting Purposes.

I, Dr KARL KRAUTSCHNEIDER, of Karl Ludwigsplatz 12, Innsbruck, Austria, do hereby declare the nature of this invention and in what manner the same is to be performed to be particularly described and ascertained in and by the following statement:—

This invention has for object to provide medical apparatus for injecting purposes in which the medicine or the like to be injected may be kept in a sterilised state in compressible capsules each containing a charge or dose of exactly the correct quantity. From these capsules, which are also sterilised, the charge can be introduced by means of the syringe directly and under aseptic conditions into the particular part of the body to be treated.

Fig. 1 of the drawings accompanying my Provisional Specification shows by way of example one construction of apparatus embodying this invention in longitudinal section.

Fig. 2 shows the injecting cylinder or body of the apparatus in elevation.

Fig. 3 shows a capsule adapted to keep medicine contained therein in proper condition.

The apparatus comprises a cylinder *a* having a cover *b* detachably fastened thereto as by means of a bayonet joint or the like. Through a centrally arranged screw threaded hole in the cover extends a spindle which is formed with a screw of quick pitch and which is provided with a squeezing die *d* at its inner end and a milled head *f* at its outer end.

The front end of the cylinder *a* has a split tubular extension *g* on to which is pushed or screwed a disc *h* adapted to compress the extension *g* at its mouth.

The medicine capsule *i*, made of tin or other suitable material, is of such size as to be readily inserted into the injecting cylinder *a*, and, in order to enable it to be filled in a sterile manner, it is provided with a discharge and filling tube *j* which, as long as the filled capsule is unused, is closed by a sealing cap *k* (Fig. 3).

When the capsule is to be used the cap *k* is removed and the capsule introduced into the cylinder *a* so that the small discharge tube *j* projects through the tubular extension *g* of the cylinder before the disc *h* is put on. By then putting the disc *h* in place the tubular extension *g* is compressed around the tube *j* and the capsule *i* thus held in place. The usual injection needle *l* can then be fixed on the tube *j*. After putting on the cover *b* the capsule can now be compressed by means of the squeezing die *d* and its contents injected into the part of the body being treated.

In order to charge the capsules they may be connected to a phial containing the medicine by a piece of flexible tubing and the liquid, by a throwing action, may be sent into the capsule by centrifugal force.

Having now particularly described and ascertained the nature of the said invention and in what manner the same is to be performed I declare that what I claim is:—

1. Medical apparatus for injecting purposes, comprising an injecting cylinder adapted to receive a compressible capsule containing a charge or dose of sterilised medicine, means for compressing a capsule inserted therein, and a tubular extension at one end of such cylinder adapted to be compressed around the

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*Krautschneider's Medical Apparatus for Injecting Purposes.*

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delivery tube of an inserted capsule, which delivery tube is adapted to be connected with an injection needle.

2. Capsules for use with apparatus according to the preceding claim, constructed of compressible material and each provided with a tube through which  
5 the capsule is charged and discharged, such tube serving for attachment of the injection needle and adapted to be sealed for preservative purposes when the capsule is not in use.

3. Medical apparatus for injecting purposes, constructed, arranged and operating substantially as hereinbefore described with reference to and shown in the  
10 drawings.

Dated this 22nd day of February 1908.

For the Applicant

F. WISE HOWORTH, F.C.S.,  
46 Lincoln's Inn Fields, London, W.C.  
Chartered Patent Agent.

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Redhill: Printed for His Majesty's Stationery Office, by Love & Malcomson, Ltd.—1908.

[This Drawing is a reproduction of the Original on a reduced scale.]

Fig. 1

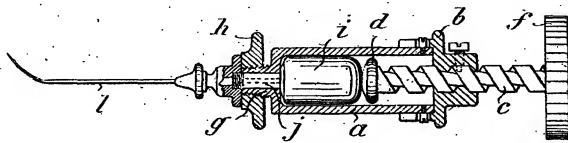


Fig. 2

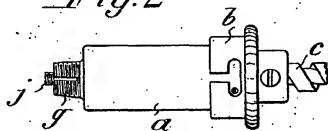
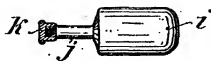


Fig. 3



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